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**COMMISSION DECISION**

**of 3 September 2002**

**establishing revised ecological criteria for the award of the Community eco-label to bed mattresses  
and amending Decision 98/634/EC**

*(notified under document number C(2002) 3293)*

**(Text with EEA relevance)**

(2002/740/EC)

(OJ L 236, 4.9.2002, p. 10)

Amended by:

		Official Journal		
		No	page	date
► <b><u>M1</u></b>	Commission Decision 2007/457/EC of 21 June 2007	L 173	29	3.7.2007
► <b><u>M2</u></b>	Commission Decision 2008/962/EC of 15 December 2008	L 340	115	19.12.2008

**COMMISSION DECISION****of 3 September 2002****establishing revised ecological criteria for the award of the  
Community eco-label to bed mattresses and amending Decision  
98/634/EC***(notified under document number C(2002) 3293)***(Text with EEA relevance)****(2002/740/EC)**

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Regulation (EC) No 1980/2000 of the European Parliament and of the Council of 17 July 2000 on a revised Community eco-label award scheme<sup>(1)</sup>, and in particular the second subparagraph of Article 6(1) thereof,

Whereas:

- (1) Under Regulation (EC) No 1980/2000 the Community eco-label may be awarded to a product possessing characteristics which enable it to contribute significantly to improvements in relation to key environmental aspects.
- (2) Regulation (EC) No 1980/2000 provides that specific eco-label criteria are to be established according to product groups.
- (3) It also provides that the review of the eco-label criteria, as well as of the assessment and verification requirements related to the criteria, is to take place in due time before the end of the period of validity of the criteria specified for each product group. That review is to result in a proposal for prolongation, withdrawal or revision.
- (4) It is appropriate to revise the ecological criteria that were established by Commission Decision 98/634/EC of 2 October 1998 establishing the ecological criteria for the award of the Community eco-label to bed mattresses<sup>(2)</sup> in order to reflect the developments in the market. At the same time, the period of validity of that Decision as extended by Commission Decision 2001/540/EC<sup>(3)</sup> and the definition of the product group should be amended.
- (5) A new Commission Decision should be adopted establishing the specific ecological criteria for this product group, which will be valid for a period of five years.
- (6) It is appropriate that, for a limited period of not more than 18 months, both the new criteria established by this Decision and the criteria established by Decision 98/634/EC should be valid concurrently, in order to allow sufficient time for companies that have been awarded or that have applied for the award of the eco-label for their products prior to the date of application of this Decision to adapt those products to comply with the new criteria.

<sup>(1)</sup> OJ L 237, 21.9.2000, p. 1.

<sup>(2)</sup> OJ L 302, 12.11.1998, p. 31.

<sup>(3)</sup> OJ L 194, 18.7.2001, p. 50.

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- (7) The measures provided for in this Decision are based on the draft criteria developed by the European Union Eco-Labeling Board established under Article 13 of Regulation (EC) No 1980/2000.
- (8) The measures provided for in this Decision are in accordance with the opinion of the committee instituted by Article 17 of Regulation (EC) No 1980/2000,

HAS ADOPTED THIS DECISION:

*Article 1*

In order to be awarded the Community eco-label under Regulation (EC) No 1980/2000, a bed mattress must fall within the product group 'bed mattresses' as defined in Article 2, and must comply with the ecological criteria set out in the Annex to this Decision.

*Article 2*

1. The product group 'bed mattresses' shall comprise:
  - (a) bed mattresses within the meaning of paragraph 2;
  - (b) latex foam for use in bed mattresses;
  - (c) polyurethane foam for use in bed mattresses.
2. 'Bed mattresses' means products providing a surface to sleep or rest upon, consisting of a strong cloth cover filled with materials, and that can be placed on an existing supporting bed structure.

This includes framed sprung mattresses, which are defined as an upholstered bed base consisting of springs, topped with fillings, on a rigid frame to be used in a bed frame or free standing, combined with a mattress pad which is not intended to be used separately.

Inflatable mattresses and water mattresses are excluded.

*Article 3*

For administrative purposes the code number assigned to the product group 'bed mattresses' shall be '014'.

*Article 4*

Article 3 of Decision 98/634/EC is replaced by the following:

*'Article 3*

The product group definition and the specific ecological criteria for the product group shall be valid until 31 January 2004.'

**▼M2***Article 5*

The ecological criteria for the product group 'bed mattresses', as well as the related assessment and verification requirements, shall be valid until 31 December 2009.

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*Article 6*

This Decision is addressed to the Member States.



## ANNEX

### FRAMEWORK

#### The aims of the criteria

These criteria aim in particular at:

- limiting the use of eco-toxic compounds,
- limiting the levels of toxic residues,
- promoting a more durable product.

The criteria are set at levels that promote the labelling of bed mattresses which have a lower environmental impact.

#### Assessment and verification requirements

The specific assessment and verification requirements are indicated within each criterion.

Where the applicant is required to provide declarations, documentation, analyses, test reports, or other evidence to show compliance with the criteria, it is understood that these may originate from the applicant and/or his supplier(s) and/or their supplier(s), etc., as appropriate.

Test reports shall be made by independent (third party) laboratories. However, the competent body assessing the application may exceptionally accept test reports from suitably accredited in-house laboratories.

Where appropriate, test methods other than those indicated for each criterion may be used if their equivalence is accepted by the competent body assessing the application.

Where appropriate, competent bodies may require supporting documentation and may carry out independent verifications.

The competent bodies are recommended to take into account the implementation of recognised environmental management schemes, such as EMAS or EN ISO14001, when assessing applications and monitoring compliance with the criteria (*Note*: it is not required to implement such management schemes.).

*Note*: Specific criteria are set for the following materials: latex foam, polyurethane foam, wire and springs, coconut fibres, wood and textile fibres and fabrics. Other materials for which no material specific criteria are set are allowed. The criteria for latex foam, polyurethane foam, or coconut fibres need only be met if that material contributes to more than 5 % of the total weight of the mattress.

*Assessment and verification*: The applicant shall supply detailed information as to the material composition of the mattresses.

### CRITERIA

#### 1. *Latex foam*

*Note*: The following criteria need only be met if latex foam contributes to more than 5 % of the total weight of the mattress.

(a) **Extractable heavy metals**: the concentrations of the following metals shall not exceed the following values:

antimony	0,5 ppm
arsenic	0,5 ppm
lead	0,5 ppm
cadmium	0,1 ppm
chromium (total)	1,0 ppm
cobalt	0,5 ppm
copper	2,0 ppm
nickel	1,0 ppm
mercury	0,02 ppm

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*Assessment and verification:* The applicant shall provide a test report, using the following test method: Milled sample extracted according to DIN 38414-S4, L/S=10. Filtration with 0,45 µm membrane filter. Analysis by means of atomic emission spectroscopy with inductive coupled plasma (ICP-AES) or with hydrid or cold vapour technique.

- (b) **Formaldehyde:** The concentration of formaldehyde shall not exceed 30 ppm as measured with EN ISO 14184-1. Alternatively it shall not exceed 0,01 mg/m<sup>3</sup> as measured with the chamber test.

*Assessment and verification:* The applicant shall provide a test report, using the following test method: EN ISO 14184-1. Sample of 1 g with 100 g water heated to 40 °C for 1 hour. Formaldehyde in extract analysed with acetylacetone, photometric.

Alternatively, the emission chamber test may be used: ENV 13419-1, with EN ISO 16000-3 or VDI 3484-1 for air sampling and analysis. The sample shall be taken less than one week after production of the foam. Packaging of sample: air tight wrapped, individually, in aluminium foil and PE foil. Conditioning: The wrapped sample shall be stored at room temperature for at least 24 hours, after which the sample is unwrapped and immediately transferred into the test chamber. Testing conditions: sample placed on sample holder which allows access of air from all sides; climatic factors as in ENV 13419-1; for comparison of test results the area specific ventilation rate ( $q = n/l$ ) shall be 1; the ventilation rate shall be between 0,5 and 1; the air sampling shall be started 24 hours after chamber loading and finished at the latest 30 hours after loading.

- (c) **Volatile organic compounds (VOCs):** The concentration of VOCs shall not exceed 0,5 mg/m<sup>3</sup>. In this context, VOCs are any organic compound having at 293,15 K a vapour pressure of 0,01 kPa or more, or having a corresponding volatility under the particular conditions of use.

*Assessment and verification:* The applicant shall provide a test report, using the following test method: chamber test (with conditions as in criterion 1(b) on formaldehyde) with DIN ISO 16000-6 for air sampling and analysis.

- (d) **Dyes, pigments, flame retardants:** Any dyes, pigments or flame retardants used shall comply with the corresponding criteria (listed below) laid down in Commission Decision 2002/371/EC of 15 May 2002 establishing the ecological criteria for the award of the Community eco-label to textile products and amending Decision 1999/178/EC<sup>(1)</sup>:

impurities in dyes

impurities in pigments

chrome mordant dyeing

azo dyes

dyes that are carcinogenic, mutagenic or toxic to reproduction

potentially sensitising dyes

flame retardants

*Assessment and verification:* The applicant shall either provide a declaration of non-use or comply with the corresponding assessment and verification requirements laid down in Decision 2002/371/EC.

- (e) **Metal complex dyes:** Metal complex dyes based on copper, lead, chromium or nickel shall not be used.

*Assessment and verification:* The applicant shall provide a declaration of non-use.

- (f) **Chlorophenols:** No chlorophenol (salts and esters) shall be present in concentrations exceeding 0,1 ppm, except mono- and di-chlorinated phenols (salts and esters) which shall not exceed 1 ppm.

*Assessment and verification:* The applicant shall provide a test report, using the following test method: Milling of 5 g sample, extraction of the chlorophenol or sodium salt. Analysis by means of gas chromatography (GC), detection with mass spectrometer or ECD.

<sup>(1)</sup> OJ L 133, 18.5.2002, p. 29.

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- (g) **Butadiene:** The concentration of butadiene shall not exceed 1 ppm.

*Assessment and verification:* The applicant shall provide a test report, using the following test method: Milling and weighing of sample. Sampling by headspace sampler. Analysis by gas chromatography, detection by flame-ionisation detector.

- (h) **Nitrosamines:** The concentration of N-nitrosamines shall not exceed 0,001 mg/m<sup>3</sup> as measured with the chamber test.

*Assessment and verification:* The applicant shall provide a test report, using the following test method: the chamber test (with conditions as in criterion 1(b) on formaldehyde) with Hauptverband der gewerblichen Berufsgenossenschaften ZH 1/120.23 (or equivalent) for air sampling and analysis.

## 2. Polyurethane (PUR) foam

*Note:* The following criteria need only be met if PUR foam contributes to more than 5 % of the total weight of the mattress.

- (a) **Extractable heavy metals:** The PUR foam shall meet the corresponding requirement for latex foam detailed in criterion 1(a).

*Assessment and verification:* as in criterion 1(a).

- (b) **Formaldehyde:** The PUR foam shall meet the corresponding requirement for latex foam detailed in criterion 1(b).

*Assessment and verification:* as in criterion 1(b).

- (c) **Volatile organic compounds (VOCs):** The PUR foam shall meet the corresponding requirement for latex foam detailed in criterion 1(c).

*Assessment and verification:* as in criterion 1(c).

- (d) **Dyes, pigments, flame retardants:** The PUR foam shall meet the corresponding requirement for latex foam detailed in criterion 1(d).

*Assessment and verification:* as in criterion 1(d).

- (e) **Metal complex dyes:** The PUR foam shall meet the corresponding requirement for latex foam detailed in criterion 1(e).

*Assessment and verification:* as in criterion 1(e).

- (f) **Organic tin:** Tin in organic form (tin bonded to a carbon atom) shall not be used.

*Assessment and verification:* The applicant shall provide a declaration of non-use. Testing is not required. Should, however (e.g. for purposes of verification or monitoring), testing be carried out, the following test method shall be used: any method that specifically measures an organic tin compound without measuring the presence of any inorganic tin compound such as tin octoate.

- (g) **Blowing agents:** CFCs, HCFCs, HFCs or methylene chloride shall not be used as blowing agents or as auxiliary blowing agents. The use of methylene chloride as an auxiliary blowing agent is nevertheless allowed in conjunction with the application of powdered flame retardants.

*Assessment and verification:* The applicant shall provide a declaration that these blowing agents have not been used. Where methylene chloride has been used, that applicant shall declare that this has only been in conjunction with the application of powdered flame retardants, and provide corresponding details.

## 3. Wire and springs

- (a) **Decreasing:** If decreasing and/or cleaning of wire and/or springs is carried out with organic solvents, use shall be made of a closed cleaning/decreasing system.

*Assessment and verification:* The applicant shall provide a corresponding declaration.

- (b) **Galvanisation:** The surface of springs shall not be covered with a galvanic metallic layer.

*Assessment and verification:* The applicant shall provide a corresponding declaration.

**▼B****4. Coconut fibres**

*Note:* The following criterion need only be met if coconut fibres contribute to more than 5 % of the total weight of the mattress.

If the coconut fibre material is rubberised, it shall comply with the criteria applicable to latex foam.

*Assessment and verification:* The applicant shall either provide a declaration that rubberised coconut fibres are not used, or provide the test reports as detailed in the criterion above on latex foam.

**5. Wooden material**

(a) **Particle board:** The formaldehyde measured in any particle board used shall not exceed 50 % of the threshold value that would allow it to be classified as class 1 quality according to EN 312-1.

*Assessment and verification:* The applicant shall either provide a declaration that particle board is not used or provide the test reports as detailed in EN 312-1.

(b) **Fibreboard:** The formaldehyde measured in any fibreboard used shall not exceed 50 % of the threshold value that would allow it to be classified as class A quality according to EN 622-1.

*Assessment and verification:* The applicant shall either provide a declaration that fibreboard is not used or provide the test reports as detailed in EN 622-1.

**6. Textiles (fibres and fabric)**

All textile fibres and fabrics (except yarn used for sewing) shall comply with all of the relevant criteria laid down in Decision 2002/371/EC (which establishes the ecological criteria for textile products).

*Assessment and verification:* The applicant shall either provide detailed documentation showing that the fibres and fabric have been awarded the eco-label or shall provide the detailed documentation (test reports, declarations, etc.) laid down in Decision 2002/371/EC that would allow the fibres and fabric to be awarded the Community eco-label.

**7. Glues**

(a) **Volatile organic compounds (VOCs):** Any glues used shall contain less than 10 % by weight of volatile organic compounds (VOCs). This criterion does not apply to glues used for occasional repairs. In this context, VOCs are any organic compound having at 293,15 K a vapour pressure of 0,01 kPa or more, or having a corresponding volatility under the particular conditions of use.

*Assessment and verification:* The applicant shall provide a declaration that the glues used comply with this criterion, together with supporting documentation.

(b) **Benzenes, chlorobenzenes:** Any glues used shall be free of benzene and chlorobenzenes.

*Assessment and verification:* The applicant shall provide a declaration that the glues used comply with this criterion, together with supporting documentation.

**8. Durability**

(a) **Loss of height:** The loss of height shall be less than 20 mm.

(b) **Loss of firmness:** The loss of firmness ( $H_s$ ) shall be less than 20 %.

*Assessment and verification* (for both (a) and (b)): The applicant shall provide a test report using the following test method: EN 1957. The losses of height and firmness refer to the difference between the measurements made initially (at 100 cycles) and after the completion (30 000 cycles) of the durability test.

**9. Information on the packaging**

The following text (or equivalent text) shall appear on the packaging:

‘For more information on the why this product has been awarded the Flower please visit the web-site: <http://europa.eu.int/ecolabel>’



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‘Please consult your local authority on the best way to dispose of your old mattress.’

*Assessment and verification:* The applicant shall provide a sample of the product packaging and of the information supplied with the product, together with a declaration of compliance with this criterion.

**10. Information appearing on the eco-label**

Box 2 of the eco-label shall contain the following text:

‘harmful substances restricted

durability approved’

*Assessment and verification:* The applicant shall provide a sample of the product packaging showing the label, together with a declaration of compliance with this criterion.